WHAT IS CLAIMED IS:

1. An optical disk comprising:

a data recording surface varying a state when irradiated with light;

a first substrate for supporting the data recording surface; and

a second substrate for protecting the data recording surface,

wherein

title in a radial direction of the first and second substrates as a whole is 0.5° or more and tilt in a tangential direction is 0.1° or less.

2. An optical disk according to claim 1, wherein the tilt in the radial direction is convex to an adhering direction when the second substrate is adhered.

3. An optical disk according to claim 1, wherein an upper limit for the tilt in the radial direction is 0.7° when a thickness of an entire optical disk is 0.6 mm.

4. An optical disk according to claim 1, wherein an upper limit for the tilt in the radial direction is 0.8° when a thickness of an entire optical disk is 0.5 mm or less.

5. An optical disk according to claim 1, wherein an upper limit for the tilt in the tangential direction is 0.15° when a thickness of an entire optical disk is 0.6 mm.

6. An optical disk according to claim 1, wherein an upper limit for the tilt in the tangential direction is 0.2° when a thickness of an entire optical disk is 0.5 mm or less.

7. A method of manufacturing an optical disk having a data recording surface, comprising the steps of:

forming a first substrate having a data recording surface by injection molding, in which a first metal mold having a predetermined surface curvature in a surface on a cavity side is set to face at a predetermined distance to a second metal mold having a surface curvature in a surface on a cavity side, which corresponds to the surface curvature of the first metal mold in an opposite direction, and a material used to form the first substrate is injected between the first and second metal molds while a stamper holding data to be recorded in advance on the data recording surface is provided for one of the first and second metal molds;

forming a second substrate capable of protecting the data recording surface of the first substrate, by injection molding, in which a first metal mold having a predetermined surface curvature in a surface on a cavity side is set to face at a predetermined distance to a second metal mold having a surface curvature in a surface on a cavity side, which corresponds to the surface curvature of the first metal mold in an

opposite direction, and a material used to form the first substrate is injected between the first and second metal molds;

setting a predetermined amount of an ultraviolet curing resin between the substrates; and

adhering the two substrates together while irradiating an ultraviolet ray.

8. A method of manufacturing an optical disk having a data recording surface, according to claim 7, wherein the surface curvature is 2 m or more and 4 m or less in terms of radius of curvature.

9. A method of manufacturing an optical disk having a data recording surface, according to claim 7, wherein a direction of curvature of the metal mold is convex with respect to a direction of an interface where the two substrates are adhered together.

10. A method of manufacturing an optical disk having a data recording surface, comprising the steps of:

forming a first substrate having a data recording surface which is convex with a predetermined curvature, by injection molding, in which a first metal mold having a flat surface on a cavity side is set to face at a predetermined distance to a second metal mold having a flat surface on a cavity side, the metal molds are set to have a predetermined difference in temperature between these metal molds while a stamper

holding data to be recorded in advance on the data recording surface is provided for one of the first and second metal molds, and a material used to form the first substrate is injected between the first and second metal molds;

forming a second substrate having a surface corresponding to the data recording surface of the first substrate, which is convex with a predetermined curvature, by injection molding, in which a first metal mold having a flat surface on a cavity side is set to face at a predetermined distance to a second metal mold having a flat surface on a cavity side, the metal molds are set to have a predetermined difference in temperature between these metal molds, and a material used to form the second substrate is injected between the first and second metal molds;

directing these substrates to an inner side such that the convex surfaces face each other, and setting a predetermined amount of an ultraviolet curing resin between the substrates; and

adhering the two substrates together while irradiating an ultraviolet ray.

11. A method of manufacturing an optical disk having a data recording surface, according to claim 10, wherein the temperatures of the first metal mold and the second metal mold are set such that the temperature of the metal mold corresponding to the interface where

the two substrates are adhered is set lower than the temperature of the other metal mold.

12. A method of manufacturing an optical disk having a data recording surface, according to claim 10, wherein the difference in temperature between the first metal mold and the second metal mold is 4℃ or more.

13. A method of manufacturing an optical disk having a data recording surface, according to claim 12, wherein the difference in temperature between the first metal mold and the second metal mold is 6℃ or less.

14. A method of manufacturing an optical disk having a data recording surface, according to claim 10, wherein the surface curvature is 2 m or more and 4 m or less in terms of radius of curvature.

15. A recording apparatus capable of recording an optical disk having a data recording surface, obtained by adhering two substrates having predetermined curvatures such that convex surfaces of the substrates are adhered surfaces, said apparatus comprising:

a light source for irradiating light;

an optical set for guiding the light from the light source towards an optical disk;

a lens for converging the light transmitted by the optical set at a predetermined position of the data recording surface of the optical disk, and guiding light reflected by the data recording surface to the optical set;

a first light detector for photoelectrically converting the reflection light from the data recording surface, which is returned through the optical set, and outputting a signal corresponding to a difference in distance between the lens and the data recording surface of the optical disk with respect to a focal distance of the lens;

a second light detector for photoelectrically converting the reflection light from the data recording surface, which is returned through the optical set, and outputting a signal corresponding to a difference between a center of a light beam spot formed at a focal point position of the lens and a center of either one of a track and a pit line on the data recording surface of the optical disk;

a third light detector for photoelectrically converting the reflection light from the data recording surface, which is returned through the optical set, and outputting a signal corresponding to a degree of tile of the data recording surface of the optical disk in a radial direction, which is created as the optical disk is rotated;

a first lens movement mechanism for moving the lens in a direction orthogonal to the data recording surface of the optical disk;

a first lens movement mechanism for moving the lens in a direction orthogonal to the data recording

surface of the optical disk;

a second lens movement mechanism for moving the lens in a direction parallel to the data recording surface of the optical disk such that the center of either one of the track and bit line coincides with the center of the beam spot; and

a radial tilt compensation mechanism for moving the lens in a direction to cancel the tilt in the radial direction detected by the third light detector.

16. A recording apparatus capable of recording an optical disk having a data recording surface, obtained by adhering two substrates having predetermined curvatures such that convex surfaces of the substrates are adhered surfaces, said apparatus comprising:

a light source for irradiating light;

an optical set for guiding the light from the light source towards an optical disk;

a lens for converging the light transmitted by the optical set at a predetermined position of the data recording surface of the optical disk, and guiding light reflected by the data recording surface to the optical set;

a first light detector for photoelectrically converting the reflection light from the data recording surface, which is returned through the optical set, and outputting a signal corresponding to a difference in distance between the lens and the data recording

surface of the optical disk with respect to a focal distance of the lens;

a second light detector for photoelectrically converting the reflection light from the data recording surface, which is returned through the optical set, and outputting a signal corresponding to a difference between a center of a light beam spot formed at a focal point position of the lens and a center of either one of a track and a pit line on the data recording surface of the optical disk;

a third light detector for photoelectrically converting the reflection light from the data recording surface, which is returned through the optical set, and outputting a signal corresponding to a degree of tile of the data recording surface of the optical disk in a radial direction, which is created as the optical disk is rotated;

a first lens movement mechanism for moving the lens in a direction orthogonal to the data recording surface of the optical disk;

a first lens movement mechanism for moving the lens in a direction orthogonal to the data recording surface of the optical disk;

a second lens movement mechanism for moving the lens in a direction parallel to the data recording surface of the optical disk such that the center of either one of the track and bit line coincides with the

center of the beam spot;

a radial tilt compensation mechanism for moving the lens in a direction to cancel the tilt in the radial direction detected by the third light detector; and

a signal reproduction mechanism for photoelectrically converting the reflection light from the data recording surface, which is returned through the optical set, and outputting it as a signal recorded on the data recording surface of the optical disk.